NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

RECEIVED
AUG 27 2002

APPLICATION FOR: TITLE V PERMIT TO OPERATE RENEWAL

2300 Myrtle Avenue Eureka, California 95501
Phone 707/443-3093 Fax 707/443-3099

APPLICATION INFORMATION

APPLICANT (Business license name of corporation, company, individual owner or governmental agency that is to operate the equipment):
Ultrapower 3

MAILING ADDRESS:
PO Box 1158, Blue Lake, CA 95525

ADDRESS OR LOCATION AT WHICH THE EQUIPMENT IS TO BE OPERATED:
200 Taylor Way, Industrial Park, Blue Lake, CA

TYPE OF FACILITY:
Electrical Power Generation

INFORMATION TO COMPLETE APPLICATION:

1. The District will include in the Title V permit renewal all equipment items which are included in your current Title V permit, subject to any changes which have occurred since the initial Title V permit was issued.

2. The District requests your company review the attached information, which will be used to formulate the Title V Permit to Operate. Your company has the right to supply additional information to the attachments as deemed necessary to clarify, or correct any information contained therein. You may use the information supplied by the District in order to complete your Title 5 application submittal to the District. Please be aware that the District plans to include in your Title 5 permit to operate all emissions sources at your facility for which there is an applicable emission regulation either in place or proposed. Therefore, if the information supplied by the District does not include an emission source at your facility which you believe is subject to an emission regulation, please provide in attachments information which describes the process, emissions characteristics, operational characteristics, and any applicable regulations including record keeping and reporting.

3. This application form is to be signed by a responsible official of the company. The signing of this application certifies that the information contained herein is accurate.

4. Provide for each equipment item a description of the methods used to determine compliance for each regulated air contaminant (i.e. Yearly source test, CEMS, Enhanced Monitoring of processes).

5. CAA Section 112(g) and 112(j) Requirements; The U.S.EPA is currently promulgating rules under NESHAPS 40 CFR 63 for Hazardous Air Pollutants (HAPs). The District may require additional information at a later date in order to comply with this program.

Signature of responsible member of firm: _____ Date of Application: 8-21-02

Michael J. Ruffatto
NAME

President
TITLE

PHONE NO. 303-796-8600

Permit Granted..... ☐
Not Granted..... ☐
Conditioned..... ☐

Permit No. NCU 097-12 Validation _____

STATIONARY SOURCE SUMMARY
(FORM V-A1)

DISTRICT: NORTH COAST UNIFIED AQMD

COMPANY NAME: Ultrapower 3

DISTRICT USE ONLY

Application #:

Application Filing Fee:

District ID:

Application Received:

Application Deemed Complete:

I. FACILITY IDENTIFICATION

1. Facility Name: Ultrapower 3
2. Four digit SIC Code: 4911 EPA Plant ID:
3. Parent Company (if different than Facility Name): North American Power Group
4. Mailing Address: P.O. Box 1158, Blue Lake, CA 95525
5. Street Address or Source Location: 200 Taylor Way, Industrial Park, Blue Lake, CA
6. UTM Coordinates (if required):
7. Source located within: 50 miles of the state line [ ] Yes [X] No
   50 miles of a Native American Nation [ ] Yes [X] No [ ] Not Applicable
8. Type of Organization: [X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility Company
9. Legal Owner's Name: North American Power Group
10. Owner's Agent Name (if any):
11. Responsible Official: Michael J. Ruffatto
12. Plant Site Manager/Contact: Sonny Davi Telephone #: 707-668-5631
13. Type of Facility: Electrical Power Generation
14. General description of processes/products: Wood fired boiler used to produce steam for a turbine-generator with a capacity of 11 megawatts
15. Does your facility store, or otherwise handle, greater than threshold quantities of any substance on the Section 112(r) List of Substances and their Thresholds? [ ] Yes [X] No
16. Is a Federal Risk Management Plan [pursuant to Section 112(r)] required? [X] Not Applicable [ ] Yes [ ] No
    (If yes, attach verification that Risk Management Plan is registered with appropriate agency or description of status of Risk Management Plan submittal.)

STATIONARY SOURCE SUMMARY
(FORM V-A2)

DISTRICT: NORTH COAST UNIFIED AQMD	**> DISTRICT USE ONLY <** **DISTRICT ID:**
COMPANY NAME: Ultrapower 3	**FACILITY NAME: Ultrapower 3**

II. TYPE OF PERMIT ACTION

	CURRENT PERMIT (permit number)	EXPIRATION (date)
☐ **Initial Title V Application**		
X **Permit Renewal**	NCU 097-12	3-18-03
☐ **Significant Permit Modification**		
☐ **Minor Permit Modification**		
☐ **Administrative Amendment**		

III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve: a: [ ] Portable Source [ ] Voluntary Emissions Caps
   [ ] Acid Rain Source [ ] Alternative Operating Scenarios
   [X] Source Subject to MACT Requirements [Section 112]

   b: [ ] None of the options in 1.a. are applicable

2. Is source operating under Compliance Schedule? [ ] Yes [X] No

3. For permit modifications, provide a general description of the proposed permit modification:

_____

_____

_____

TOTAL STATIONARY SOURCE EMISSIONS
(FORM V-B)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≪ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario : Boiler fueled by wood fuel. Emission factors for dry wood (and in the case of PM10 use of an ESP) taken from AP-42, Section 1.6, revised 3/02. Emissions then based on heat input of 185 MMBtu/hr, 8760 operating hours per year, and 7200 Btu/lb wood fuel (dry basis).

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
PM_{10}	32.4		
CO	486.2		
NO_X	397.0		
SO_X	20.3		
Silver	1.4		
Acrolein	3.2		
Benzene	3.4		
Formaldehyde	3.6		
Hydrogen chloride	15.4		
Methane	17.0		
Styrene	1.5		

* Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported.

TOTAL STATIONARY SOURCE EMISSIONS
(FORM V-B)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≪ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario: Boiler fueled by propane (80 MMBtu/hr). Emission factors taken from AP-42, Section 1.5, revised 10/96. Emissions then based on maximum annual propane consumption of 1.78 million gallons.

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
PM_{10}	0.5		
CO	2.8		
Nox	16.9		
Sox	0.02		

* Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported.

TOTAL STATIONARY SOURCE EMISSIONS
(FORM V-B)

DISTRICT: NORTH COAST UNIFIED AQMD	> DISTRICT USE ONLY < DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario: Cooling Tower. Emissions based on 7,700 gallons per minute circulating flow rate, 20,000 mg/L total dissolved solids, and a percent drift loss of 0.001% gallon/gallon circulating water flow.

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
PM_{10}	3.4		

* Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported.

COMBUSTION EMISSION UNIT
(FORM V-C1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PERMIT NUMBER: NS-071

II. EMISSION UNIT DESCRIPTION

1. Equipment type: Steam Generator
2. Equipment description: Wood Fired Boiler
3. Equipment make, model & serial number: Zurn Corporation
4. Maximum design process rate or maximum power input/output: 118,000 lbs steam generation, 185 MMBtu/hr
5. Primary use: Electricity generation for sale
6. Burner(s) design, operating temperature and capacity: Propane burner rated at 80 MMBtu/hr
7. Control device(s) type and description (if any): Particulate matter is controlled w/ mechanical multiclones followed by a 2 field electrostatic precipitator (21,002 square feet collection area) manufactured by Research Cottrell Corporation.

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 365 (hours/year)
2. Exhaust gas properties (temperature, SCFM, %H2O, %O2 or %CO2, % excess air):
   44,293 dscf at 265°F; 24% H_2O; 5% excess O_2
3. Fuel specifications:

FUEL TYPE (name)	ANNUAL USAGE (c.f./yr, lb/yr, gal/yr)	HEATING VALUE (BTU/lb or BTU/gal)	SULFUR (%)	NITROGEN (%)
Wood	95,329 dry tons	17 MMBtu/ton	0.2	0.2 - 0.5
Propane	1.78 million gallons	91,500 Btu/gal	None	None

EMISSION CONTROL UNIT
(FORM V-G1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PERMIT NUMBER: NS-071

II. EQUIPMENT DESCRIPTION

1. General process description: Electricity Generation
2. Equipment type: Electrostatic precipitator
3. Equipment description: Two (2) separate rectifier fields (rated at 85 KVA) and a collection plate area of 21,002 square ft.
4. Equipment make, model & serial number: Research Cottrell Corporation
5. Emission unit(s) served by this equipment: Wood fired boiler
6. Maximum design or rated capacity: 11.0 megawatts

III. EQUIPMENT DESIGN INFORMATION

1. Exhaust gas: Temperature: 215-400 (F) Flow Rate: 44,000 (SCFM)
   Moisture: 24 (%) Oxygen: 5 (%)
   CO_2: 15 (%)
2. General: Manufacturer: Research Cottrell Corporation Pressure Drop: 1-2 (in-Hg)
   Inlet Temp.: 265 (F) Outlet Temp.: 265 (F)
3. Catalyst data: Catalyst Type/Material: _____ _____
   Catalyst Life: ____(years) Volume: _____(ft^3)
   Space Velocity: ____ (Ft^3/Ft) NH_3 inj. Rate: _____(gal/hr)
   NH_3 Inj. Temp.: ____ (F)
4. Baghouse data: Design: [ ] Positive Pressure [ ] Negative Pressure
   Cleaning Method: _____
   Fabric Material: _____
   Flow Rate: _____ (SCFM) Air/Cloth Ratio: _____
5. ESP data: Number of fields: 2 Cleaning Method: Mechanical
   Power Input: 85 KVA
6. Scrubber data: Type/design: _____ Sorbent Type: _____
7. Other Control Devices (include appropriate design information):

EMISSION CONTROL UNIT
(FORM V-G2)

DISTRICT: NORTH COAST UNIFIED AQMD	**➢ DISTRICT USE ONLY ≺** **DISTRICT ID:**
COMPANY NAME: Ultrapower 3	**FACILITY NAME: Ultrapower 3**

IV. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8760 (hours/year)
2. Raw products used by control device: _____
3. Operating information: _____

POLLUTANTS AND EMISSION CONTROL INFORMATION

POLLUTANT (name)	INLET CONCENTRATION (ppm or gr/DSCF[1])	OUTLET CONCENTRATION (ppm or gr/DSCF[1])	CONTROL EFFICIENCY (% weight)
PM	2.0 lb/MMBtu	0.04 lb/MMBtu	98

[1] Specify percent O_2 or percent CO_2.

COMPLIANCE PLAN
(FORM V-I2)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

III. COMPLIANCE CERTIFICATION

Under penalty of perjury, I certify the following:

X ***Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) with which the source is in compliance identified in form V-I1;***

☐ ***Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with the future-effective applicable federal requirement(s) identified in form V-I1, on a timely basis[1];***

☐ ***Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance with the applicable federal requirement(s), identified in form V-I1, and I have attached a compliance plan schedule.[2]***

8-21-02

Signature of Responsible Official — Date

1. Unless a more detailed schedule is expressively required by the applicable federal requirement.
2. At the time of expected permit issuance, if the source expects to be out of compliance with an applicable federal requirement, the applicant is required to provide a compliance schedule with this application, with the following exception. A source which is operating under a variance that is effective for less than 90 days need not submit a Compliance Schedule. For sources operating under a variance, which is in effect for more than 90 days, the Compliance Schedule is the schedule that was approved as part of the variance granted by the hearing board.

   The compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with this applicable federal requirement. For sources operating under a variance, the compliance schedule is part of the variance granted by the hearing board. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. For sources not operating under a variance, consult the Air Pollution Control Officer regarding procedures for obtaining a compliance schedule.

COMPLIANCE PLAN
(FORM V-I1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME:	FACILITY NAME:

I. PROCEDURE FOR USING FORM XXX-I

☞ *This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form V-I2), a Responsible Official shall identify whether the source identified in the Title V Application will operate in compliance with all applicable federal requirements.*

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt[1])	EFFECTIVE DATE[2]
1. SIP Regulations			
• Rule 410, Visible Emissions	Boiler	Yes	
(adopted 10/31/80)			
Opacity less than 40% except for 3 minutes			
in any 1 hour			
• Rule 420 (b), Particulate Matter	Boiler	Yes	
(adopted 10/31/80)			
PM less than 0.10 grains/dscf @12% CO_2			
• Rule 540, Equipment Breakdown	Boiler	Yes	
(adopted 10/31/80)			

1 *If exempt from applicable federal requirement, attach explanation for exemption.*
2 *Indicate the date during the permit term that the applicable federal requirement will become effective.*

COMPLIANCE PLAN
(FORM V-I1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PROCEDURE FOR USING FORM XXX-I

☞ *This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form V-I2), a Responsible Official shall identify whether the source identified in the Title V Application will operate in compliance with all applicable federal requirements.*

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt[1])	EFFECTIVE DATE[2]
2. NSPS, Subpart Db			
• PM ≤ 0.1 lbs/MMBtu heat input	Boiler	Yes	
• Opacity ≤20% (6 minute average)	Boiler	Yes	
except for one, six minute period per hour of not			
more than 27% opacity			
• The annual use of propane shall not exceed 10%	Boiler	Yes	
of the annual maximum heat input to the boiler,			
which equates to 1.78 million gallons.			
• Recordkeeping			
- Daily fuel usage by type	Boiler	Yes	
- Calculate monthly annual capacity factor for	Boiler	Yes	
wood and propane on a 12 month moving			
Average basis.			

1 *If exempt from applicable federal requirement, attach explanation for exemption.*
2 *Indicate the date during the permit term that the applicable federal requirement will become effective.*

COMPLIANCE PLAN
(FORM V-I1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≪ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PROCEDURE FOR USING FORM XXX-I

☞ *This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form V-I2), a Responsible Official shall identify whether the source identified in the Title V Application will operate in compliance with all applicable federal requirements.*

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt[1])	EFFECTIVE DATE[2]
- Maintain records of opacity 6 minute averages	Boiler	Yes	
- Submit excess emissions reports each calendar	Boiler	Yes	
quarter (opacity requirement does not apply			
during periods of startup, shutdown or			
breakdowns)			

1 *If exempt from applicable federal requirement, attach explanation for exemption.*
2 *Indicate the date during the permit term that the applicable federal requirement will become effective.*

COMPLIANCE PLAN
(FORM V-I1)

DISTRICT: NORTH COAST UNIFIED AQMD	> DISTRICT USE ONLY < DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PROCEDURE FOR USING FORM XXX-I

☞ *This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form V-I2), a Responsible Official shall identify whether the source identified in the Title V Application will operate in compliance with all applicable federal requirements.*

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt[1])	EFFECTIVE DATE[2]
3. PSD Requirements			
(issued on 1/12/84 and revised 6/13/86, 10/20/87,			
and 9/24/91).			
• Particulate matter shall not be discharged in	Boiler	Yes	
excess of 0.04 lbs/MMBtu heat input.			
• Nitrogen oxides shall not be discharged in	Boiler	Yes	
excess of 0.15 lbs/MMBtu heat input on a			
3 hour average basis.			
• Carbon monoxide shall not be discharged in	Boiler	Yes	
excess of 1.0 lbs/MMBtu heat input on a 3 hour			
average basis.			

1 *If exempt from applicable federal requirement, attach explanation for exemption.*
2 *Indicate the date during the permit term that the applicable federal requirement will become effective.*

COMPLIANCE PLAN
(FORM V-I1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➣ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. PROCEDURE FOR USING FORM XXX-I

☞ *This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form V-I2), a Responsible Official shall identify whether the source identified in the Title V Application will operate in compliance with all applicable federal requirements.*

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt[1])	EFFECTIVE DATE[2]
• Steam production shall not exceed 118,000 lbs/hr	Boiler	Yes	
on a monthly average basis.			
• Maintain a log of temperature, pressure and steam	Boiler	Yes	
production rate.			
• Shall burn only untreated wood, bark and propane.	Boiler	Yes	
• Shall continuously operate and maintain an		Yes	
electrostatic precipitator on the exhaust gas			
discharge with precollection by a multi-clone			
collector.			
• Opacity data shall be reported to the District on		Yes	
a weekly basis.			

1 *If exempt from applicable federal requirement, attach explanation for exemption.*
2 *Indicate the date during the permit term that the applicable federal requirement will become effective.*

COMPLIANCE PLAN CERTIFICATION
(FORM V-J1)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≺ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

I. CERTIFICATION STATUS

1. Indicate the dates the applicant intends to submit the **COMPLIANCE CERTIFICATION REPORT** to the district during the entire permit term. The district federal operating permits rule requires the applicant to submit this report at least annually.

   January 30 of each year

2. For sources required to have a schedule of compliance to remedy a violation, indicate the dates the applicant intends to submit **CERTIFIED PROGRESS REPORTS** to the district during the permit term. The district federal operating permits rule requires the applicant to submit this report at least semiannually.

   Not Applicable

3. Describe the compliance status of the source with respect to applicable enhanced monitoring, and compliance certification requirements of Section 114(a)(3) of the Clean Air Act:

   A Continuous Emission Monitoring system (CEM) for NOx and CO has been installed, and is operated when the facility is operated. CEM reports will be included in the semi-annual compliance certification.

COMPLIANCE PLAN CERTIFICATION
(FORM V-J2)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≺ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: NSPS – Visible Emissions, opacity < 20% on a 6 minute average basis (strictest opacity limit).

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Transmissometer
Reporting	Semi-annual monitoring and deviation report; quarterly excess emissions report; breakdown report.
Record Keeping	CEM log; deviation reports, as they occur; record breakdown, maintenance and inspections, as they occur, in Facility log.
Test Methods	Federal Performance Specification 1

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: PSD – Particulate Matter, no more than 0.04 lbs/MMBtu heat input.

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Periodic testing as required by the District
Reporting	Semi-annual monitoring and deviation report; breakdown report.
Record Keeping	Deviation reports, as they occur; breakdown reports, as they occur, in facility log.
Test Methods	CARB Methods 1-5.

COMPLIANCE PLAN CERTIFICATION
(FORM V-J2)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≪ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: PSD – Nitrogen oxide, no more than 0.15 lbs/MMBtu heat on a 3 hour average basis

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Periodic testing as required by the District
Reporting	Semi-annual monitoring and deviation report; breakdown report.
Record Keeping	Deviation reports, as they occur; breakdown reports, as they occur, in facility log.
Test Methods	CARB Method 100

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: PSD – Carbon Monoxide, no more than 1.00 lbs/MMBtu heat on a 3 hour basis

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Periodic testing as required by the District.
Reporting	Semi-annual monitoring and deviation report; breakdown report.
Record Keeping	Deviation reports, as they occur; breakdown reports, as they occur, in facility log.
Test Methods	CARB Method 100

COMPLIANCE PLAN CERTIFICATION
(FORM V-J2)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ➢ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: PSD – operational limits steam, production; use of ppt; untreated wood.

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Track steam production, temperature and pressure, operation of precipitator functions.
Reporting	Semi-annual monitoring and deviation report.
Record Keeping	Record hourly steam production, temperature and pressure. Record at least every 6 hours precipitator
	voltages and currents to all fields. Maintain deviation reports; maintenance and inspection reports.
Test Methods	None

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE REQUIREMENT: NSPS – Recordkeeping requirements; fuel usage

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Track fuel type and amount combusted; annual capacity factor for each fuel.
Reporting	Semi-annual monitoring and deviation report.
Record Keeping	Record daily fuel use by type and amount; determine daily annual capacity factor for each fuel; maintain
	deviation reports, in facility log.
Test Methods	None.

COMPLIANCE PLAN CERTIFICATION
(FORM V-J2)

DISTRICT: NORTH COAST UNIFIED AQMD	➢ DISTRICT USE ONLY ≺ DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: Rule 540 – Equipment Breakdown, Excess Emissions

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Routine Monitoring.
Reporting	Telephone report to the District within 1 hour of occurrence. Written breakdown report within 10 days.
Record Keeping	Maintain log of breakdowns.
Test Methods	None

EMISSION UNIT or PERMIT NUMBER: Boiler

APPLICABLE FEDERAL REQUIREMENT: PSD – Opacity Monitoring Reports (more strict than NSPS).

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Routine Monitoring.
Reporting	Weekly reports of opacity monitoring data. Excess opacity, not due to breakdown, notify District within 96 hours.
Record Keeping	Record and maintain all 6 minute average opacity readings. Deviation reports, as they occur, in facility log.
Test Methods	None.

Attachment A
Emission Summary

CERTIFICATION STATEMENT
(FORM V-M)

DISTRICT: NORTH COAST UNIFIED AQMD	> DISTRICT USE ONLY < DISTRICT ID:
COMPANY NAME: Ultrapower 3	FACILITY NAME: Ultrapower 3

Identify, by checking off below, the forms and attachments that are part of your application. If the application contains forms or attachments that are not identified below, please identify these attachments in the blank space provided below. Review the instructions if you are unsure of the forms and attachments that need to be included in a complete application.

Forms included with application

- [X] Stationary Source Summary Form
- [X] Total Stationary Source Emission Form
- [X] Compliance Plan Form
- [X] Compliance Plan Certification Form
- [X] Exempt Equipment Form
- [X] Certification Statement Form

List other forms or attachments

_____
_____
_____
_____

[ ] Check here if more forms listed on back

Attachments included with application

- [ ] Description of Operating Scenarios
- [X] Sample emission calculations
- [ ] Fugitive emission estimates
- [ ] List of Applicable requirements
- [ ] Discussion of units out of compliance with applicable federal requirements and, if required, submit a schedule of Compliance
- [ ] Facility schematic showing emission points
- [ ] NSR Permit
- [ ] PSD Permit
- [ ] Enhanced monitoring protocols
- [ ] Risk Management verification per 112(r)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, that the information contained in this application, composed of the forms and attachments above, are true, accurate, and complete.

I certify that I am the responsible official, as defined in (title of district Title V permitting rule).

_____ 8-21-02
Signature of Responsible Official — Date

Michael J. Ruffatto
Print Name of Responsible Official

President, North American Power Group
Title of Responsible Official and Company Name

Blue Lake Generating Station
Ultrapower 3
Emissions Summary

Pollutant	Emissions (tpy)
PM_{10}	49.8
SO_2	20.3
NO_2	138.5
CO	813.1
Total HAPs	49.3
Hydrogen Chloride	15.40
Methane	17.02

Blue Lake Generating Station
Ultrapower 3
HAP Analysis

Trace Element	CAS Number	Wood Content (lb/MMBtu) (a)	Control Efficiency	Element/Oxide Conversion (b)	Emission Rate (lb/yr)	Emission Rate (tpy)
Antimony Compounds (Sb_2O_3)	7440-36-0	7.90E-06	98	1.197	0.31	0.0002
Arsenic Compounds (As_2O_5)	7440-38-2	2.20E-05	98	1.534	1.09	0.0005
Barium	7440-39-3	1.70E-04	98	1.534	8.45	0.004
Beryllium Compounds (BeO)	7440-41-7	1.10E-06	98	2.775	0.10	0.00005
Cadmium Compounds (CaO)	7440-43-9	4.10E-06	98	1.399	0.19	0.0001
Chromium Total (Cr_2O_3)	7440-47-3	2.10E-05	98	1.462	1.00	0.0005
Chromium hexavalent (Cr_2O_3)	7440-47-3	3.50E-06	98	1.462	0.17	0.00008
Cobalt Compounds (CoO)	7440-48-4	6.50E-06	98	1.271	0.27	0.0001
Copper (CuO)	1317-38-0	4.90E-05	98	1.252	1.99	0.001
Iron (Fe_2O_3)	1309-37-1	9.90E-04	98	1.43	45.89	0.02
Lead Compounds (PbO)	1317-36-8	4.80E-05	98	1.077	1.68	0.0008
Manganese Compounds (MnO_2)	1313-13-9	1.60E-03	98	1.582	82.04	0.04
Mercury Compounds		3.50E-06	0	na	5.67	0.003
Molybdenum (MoO_3)	1313-27-5	2.10E-06	98	1.30	0.09	0.00004
Nickel Compounds (NiO)		3.30E-05	98	1.273	1.36	0.0007
Phosphorus (P_2O_5)	1314-56-3	2.70E-05	98	2.29	2.00	0.0010
Potassium (K_2O)		3.90E-02	98	1.205	1264.07	0.63
Selenium	7782-49-2	2.80E-06	0	na	4.54	0.002
Silver	7440-22-4	1.70E-03	0	na	2755.02	1.38
Sodium (Na_2O)		3.60E-05	98	1.348	1.57	0.0008
Strontium (SrO)	1314-11-0	1.00E-05	98	1.183	0.38	0.0002
Tin (SnO_2)	18282-10-5	2.30E-05	98	1.270	0.95	0.0005
Titanium (TiO_2)	13463-67-7	2.00E-05	98	1.668	1.08	0.0005
Vanadium (V_2O_5)	1314-62-1	9.80E-07	98	1.785	0.06	0.00003
Yttrium (Y_2O_3)	1314-36-9	3.00E-07	98	1.270	0.01	0.000006
Zinc (ZnO)	1314-12-2	4.20E-04	98	1.245	16.95	0.008
Total Hazardous Air Pollutants					**4,197**	**2.1**

Notes:

11.0 Mw Boiler
8760 Operation hours per year
7200 Btu/lb wood fuel (dry basis)
185 MMBtu/hr heat input
98 % efficiency allowed for ESP

References

(a) AP-42 Section 1.6
(b) Pocket Ref (Thomas J. Glover), page 212

Blue Lake Generating Station
Ultrapower 3
HAP Analysis

Organic Compounnd	CAS Number	Emissions (lb/MMBtu) (a)	Emission Rate (lb/yr)	Emission Rate (tpy)
Acenaphthene	83-32-9	9.10E-07	1.47	0.001
Acenaphthylene	208-96-8	5.00E-06	8.10	0.004
Acetaldehyde	75-07-0	8.30E-04	1345.10	0.67
Acetone	67-64-1	1.90E-04	307.91	0.15
Acetophenone	98-86-2	3.20E-09	0.01	0.000003
Acrolein	107-02-8	4.00E-03	6482.40	3.24
Anthracene	120-12-7	3.00E-06	4.86	0.002
Benzaldehyde	100-52-7	8.50E-07	1.38	0.001
Benzene	71-43-2	4.20E-03	6806.52	3.40
Benzo(a)anthracene	56-55-3	6.50E-08	0.11	0.0001
Benzo(a)pyrene	50-32-8	2.60E-06	4.21	0.002
Benzo(b)fluoranthene	205-99-2	1.00E-07	0.16	0.0001
Benzo(e)pyrene	192-97-2	2.60E-09	0.00	0.000002
Benzo(g,h,i)perylene	191-24-2	9.30E-08	0.15	0.0001
Benzo(j,k)fluoranthene		1.60E-07	0.26	0.0001
Benzo(k)fluoranthene	207-08-9	3.60E-08	0.06	0.00003
Benzoic acid	65-85-0	4.70E-08	0.08	0.00004
bis(2-Ethylhexyl)phthalate	117-81-7	4.70E-08	0.08	0.00004
Bromomethane	74-83-9	1.50E-05	24.31	0.01
2-Butanone (MEK)	78-93-3	5.40E-06	8.75	0.004
Carbazole	86-74-8	1.80E-06	2.92	0.001
Carbon tetrachloride	56-23-5	4.50E-05	72.93	0.04
Chlorine	7782-50-5	7.90E-04	1280.27	0.64
Chlorobenzene	108-90-7	3.30E-05	53.48	0.03
Chloroform	67-66-3	2.80E-05	45.38	0.02
Chloromethane	74--87-3	2.30E-05	37.27	0.02
2-Chloronaphthalene	91-58-7	2.40E-09	0.00	0.000002
2-Chlorophenol	95-57-8	2.40E-08	0.04	0.00002
Chrysene	218-01-9	3.80E-08	0.06	0.00003
Crotonaldehyde	123-73-1	9.90E-06	16.04	0.01
Decachlorobiphenyl	2051-24-3	2.70E-10	0.00	0.0000002
Dibenzo(a,h)anthracene	53-70-3	9.10E-09	0.01	0.00001
1,2-Dibromoethene		5.50E-05	89.13	0.04
Dichlorobiphenyl	25512-42-9	7.40E-10	0.00	0.000001
1,2-Dichloroethane	107-06-2	2.90E-05	47.00	0.02
Dichloromethane	75-09-2	2.90E-04	469.97	0.23
1,2-Dichloropropane	78-87-5	3.30E-05	53.48	0.03
2,4-Dinitrophenol	51-28-5	1.80E-07	0.29	0.0001
Ethylbenzene	100-41-4	3.10E-05	50.24	0.03
Fluoranthene	206-44-0	1.60E-06	2.59	0.001
Fluorene	86-73-7	3.40E-06	5.51	0.003
Formaldehyde	50-00-0	4.40E-03	7130.64	3.57
Heptachlorobiphenyl	28655-71-2	6.60E-11	0.00	0.0000001
Hexachlorobiphenyl	26601-64-9	5.50E-10	0.00	0.000000
Hexanal	66-25-1	7.00E-06	11.34	0.01
Heptachlorodibenzo-p-dioxins		2.00E-09	0.00	0.000002
Heptachlorodibenzo-p-furans		2.40E-10	0.00	0.0000002
Hexachlorodibenzo-p-dioxins		1.60E-06	2.59	0.001
Hexachlorodibenzo-p-furans		2.80E-10	0.00	0.0000002

Blue Lake Generating Station
Ultrapower 3
HAP Analysis

Organic Compound	CAS Number	Emissions (lb/MMBtu) (a)	Emission Rate (lb/yr)	Emission Rate (tpy)
Hydrogen chloride	7647-01-0	1.90E-02	30791.40	15.40
Indeno(1,2,3,c,d)pyrene	193-39-5	8.70E-08	0.14	0.0001
Isobutyraldehyde	78-84-2	1.20E-05	19.45	0.01
Methane	624-92-0	2.10E-02	34032.60	17.02
2-Methylnaphthalene	91-57-6	1.60E-07	0.26	0.0001
Monochlorobiphenyl	27323-18-8	2.20E-10	0.00	0.0000002
Naphthalene	91-20-3	9.70E-05	157.20	0.08
2-Nitrophenol	88-75-5	2.40E-07	0.39	0.0002
4-Nitrophenol	100-02-7	1.10E-07	0.18	0.0001
Octachlorodibenzo-p-dioxins		6.60E-08	0.11	0.0001
Octachlorodibenzo-p-furans		8.80E-11	0.00	0.0000001
Pentachlorodibenzo-p-dioxins		1.50E-09	0.00	0.000001
Pentachlorodibenzo-p-furans		4.20E-10	0.00	0.0000003
Pentachlorobiphenyl	25429-29-2	1.20E-09	0.00	0.000001
Pentachlorophenol	87-86-5	5.10E-08	0.08	0.00004
Perylene		5.20E-10	0.00	0.0000004
Phenanthrene	85-01-8	7.00E-06	11.34	0.01
Phenol	108-95-2	5.10E-05	82.65	0.04
Propanal		3.20E-06	5.19	0.003
Propionaldehyde	123-38-6	6.10E-05	98.86	0.05
Pyrene	129-00-0	3.70E-06	6.00	0.003
Styrene	100-42-5	1.90E-03	3079.14	1.54
2,3,7,8-Tetrachlorodibenzo-p-dioxins	1746-01-6	8.60E-12	0.00	0.00000001
Tetrachlorodibenzo-p-dioxins	N/A	4.70E-10	0.00	0.0000004
2,3,7,8-Tetrachlorodibenzo-p-furans	1746-01-6	9.00E-11	0.00	0.0000001
Tetrachlorodibenzo-p-furans		7.50E-10	0.00	0.000001
Tetrachlorobiphenyl		2.50E-09	0.00	0.000002
Tetrachloroethene	127-18-4	3.80E-05	61.58	0.03
o-Tolualdehyde	529-20-4	7.20E-06	11.67	0.01
p-Tolualdehyde	104-87-0	1.10E-05	17.83	0.01
Toluene	108-88-3	9.20E-04	1490.95	0.75
Trichlorobiphenyl		2.60E-09	0.00	0.000002
1,1,1-Trichloroethane	71-55-6	3.10E-05	50.24	0.03
Trichloroethene	79-01-6	3.00E-05	48.62	0.02
Trichlorofluoromethane	75-69-4	4.10E-05	66.44	0.03
2,4,6-Trichlorophenol	88-06-2	2.20E-08	0.04	0.00002
Vinyl Chloride	75-01-4	1.80E-05	29.17	0.01
o-Xylene	95-47-6	2.50E-05	40.52	0.02026
Total Organic Compounds		0.058		**47.2**

Notes:

11.0 Mw Boiler
8760 Operation hours per year
7200 Btu/lb wood fuel (dry basis)
185 (MMBtu/hr) Heat Input

References

(a) AP-42 Section 1.6

Blue Lake Generating Station
Ultrapower 3
Criteria Pollutant Summary -Wood Combustion

Pollutant	Emissions (lb/MMBtu)	Emission Rate (lb/yr)	Emission Rate (tpy)
PM_{10} (a)	0.04	64824	32.412
CO (a)	1.0	1620600	810.3
NOx (a)	0.15	243090	121.545
SOx (b)	0.025	40515	20.2575

Notes:
11.0 Mw Boiler
8760 Operation hours per year
7200 Btu/lb wood fuel (dry basis)
185 (MMBtu/hr) Heat Input

References
(a) Permit limit
(b) AP-42 Section 1.6

Blue Lake Generating Station
Ultrapower 3
Criteria Pollutant Summary - Propane Combustion

Pollutant	Emissions (lb/1000 gal) (a)	Annual Fuel Consumption (gal/yr)	Emission Rate (tpy)
PM_{10}	0.6	1.78E+06	0.534
CO	3.2	1.78E+06	2.848
NOx	19	1.78E+06	16.91
SOx	0.018	1.78E+06	0.01602

Notes:
11 Mw Boiler

References
(a) AP-42 Section 1.6

Blue Lake Generating Station
Ultrapower 3
Cooling Tower Emissions

Cooling Tower

Assumptions:

101	is the ambient dry bulb temperature
77	is the ambient wet bulb temperature
7,700	gallons per minute is the circulating water flow rate
20,000	TDS concentration of the water
2,300	gallons per minute is the evaporation rate
0.005%	is the percent drift loss
No Data	is the particle size multiplier, k, for TSP (<= 30um) (AP-42 Section 13.4).
1	is the particle size multiplier, k, for PM_{10} (AP-42 Section 13.4).

Using the PM_{10} emission factor in AP-42 Section 13.4, Table 13.4-1, for induced draft cooling towers:

Uncontrolled Emissions:

PM_{10} EF=	0.019	lbs PM_{10}/1,000 gallons circulating water flow
PM_{10} Emissions =	210.67	lbs / day
PM_{10} Emissions =	38.45	tons / year

Controlled Emissions:

Drift EF=	0.00005	Drift rate - gal/gal of circulating water flow
PM_{10} Emissions =	3.85	lbs /hr
PM_{10} Emissions =	16.88	tons / year